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ABSTRACT

Conditions that influence a school's readiness for change are analyzed in this monograph for the purpose of providing practitioners, especially those who provide assistance to schools, with specific guides for diagnosing readiness for change. The publication is a tool to help school personnel and others make wise and deliberate decisions about adopting or rejecting changes. The first of five sections presents a perspective on schools as social systems composed of individuals and groups interlocked in organized ways. Section two describes some reasons why schools are resistant to change. The third section presents a set of conditions associated with a school's readiness to undergo change. These conditions are grouped into six clusters dealing with (1) accessibility of resources and support, (2) internal press for change, (3) stability of the staff, (4) skill in collaboration, (5) norms about collaboration, and (6) risk-taking. Section four is a discussion of some considerations about collecting diagnostic information. The concluding section presents a list of resources, mostly annotated, for understanding and improving the possibilities of productive change. (Author/MLF)

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What to Look For When Starting an Innovation

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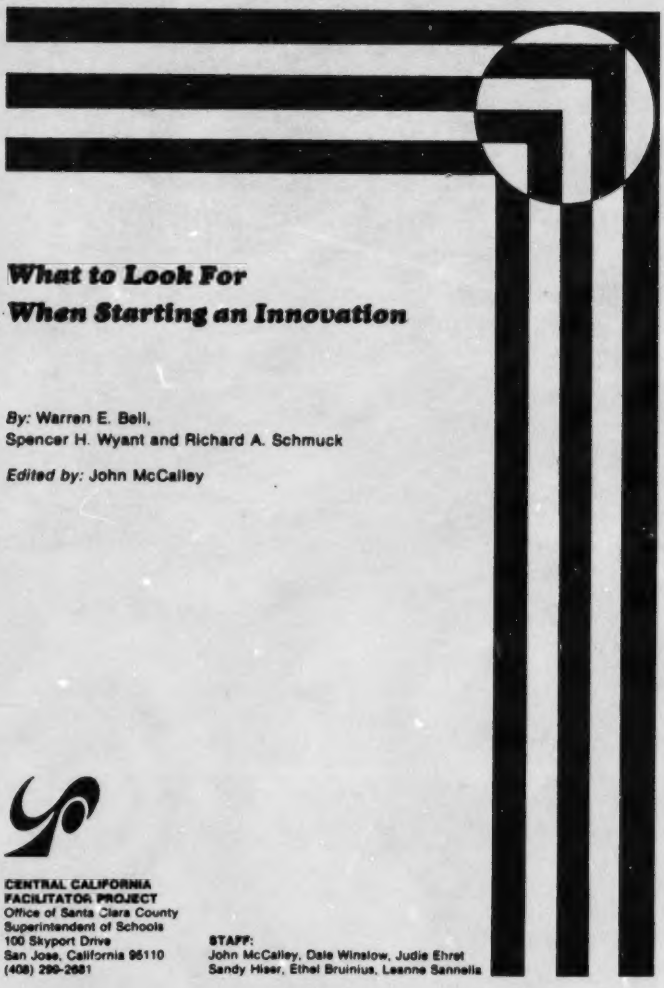

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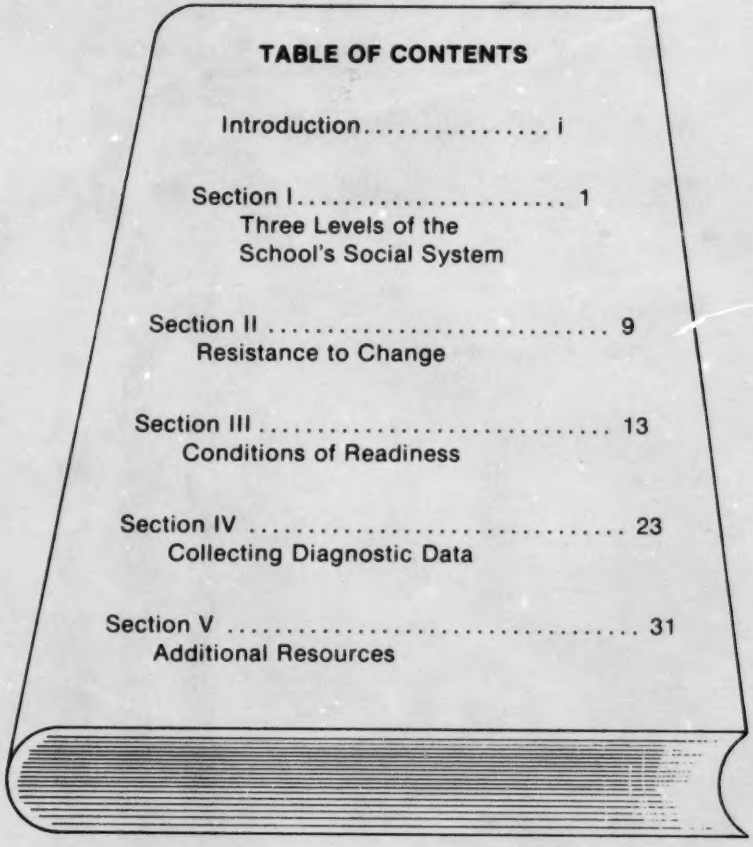

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Introduction

Change occurs in schools when people alter programs, materials, and the way they interact with each other. Change is difficult to initiate and maintain because the interactions among people have already, in most instances, become stable routines that are dependable and more or less satisfying. Change disrupts this stability: it brings uncertainty and at least a temporary loss of the rewards and routines that people have come to count on. Change is nearly always costly and painful, and too often it falls short of reaching its goal.

In recent years a growing body of knowledge has described strategies of productive change—methods and procedures that *do* bring about effective school improvement. There is now some agreement about the best ways of assisting schools to implement changes and adopt innovations. Much of this literature has been summarized by Runkel and Schmuck, *et al* (1979), who rely on four major studies:

(1) **The League of Cooperating Schools:** Bentzen and associates, 1974; Goodlad, 1975; Tye and Novotney, 1975.
(2) **The Program on Strategies of Organizational Change:** Schmuck and Runkel, 1970; Schmuck *et al*, 1975; Runkel, Wyant and Bell, 1975; Schmuck, Runkel, Arends, and Arends, 1977; Runkel and Schmuck, *et al*, 1979.
(3) **The National Diffusion Network:** Emerick, Peterson, and Agarwala-Rogers, 1977; Emerick and Peterson, 1977.
(4) **The Rand Study:** Berman and McLaughlin, 1975; Mann, 1976; Berman and others, 1977.

The studies are unanimous in stating that helpers and decision-makers must join with school participants from the outset in *collaborative planning.* Local participants must be involved in identifying problems, sharing dissatisfactions, setting goals, and selecting solutions. Local participants also need to be involved in the ongoing monitoring of the change project.

The studies are also in agreement about the need for *mutual adaptation* or *tailoring* the new strategies or methods to meet the needs and requirements of local conditions. Similarly, local participants must alter some of their routines to meet the purposes and methods of the change effort.

Further, the studies stress the need for *local adaptation* or *development of materials* and warn against the direct adoption of "packaged" materials. In effect, there *is* a need to "reinvent the wheel" in almost every case.

Also, the studies indicate that *inservice training* is needed to insure that participants are able to make the new methods or strategies work. Several studies stress the need for training in both the technical skills and content of the change as well as in the skills of working together productively.

Finally, the studies place strong importance on *making explicit arrangements for institutionalization.* The arrangements needed include preparing for a reduction in outside resources and providing assistance to participants as they make the change a routine part of their daily activities.

These five principles appear to be fairly universal: all of them applied in a great many schools studied, and none of the reports found evidence opposed to any of the principles. The clear implication is that change efforts which include collaborative planning, mutual adaptation, local materials development, inservice training, and explicit arrangements for institutionalization are far more likely to succeed than those which do not.

Of course change is not always possible or even desirable. Some changes are ill-conceived and should not be attempted. Others are worthy ideas that do not fit a particular classroom, school, or district. Still others are good ideas but not worth the energy it takes to implement them.

Our purpose is not to provide a "bag of tricks" to rout all resistance to change; some resistance is appropriate and healthy. Nor do we always define making change as "success" and rejection of innovation as "failure." Rather, "success" consists of an *explicit, shared* decision about adoption or rejection. The decision to adopt or reject should be based on a careful and shared assessment of the school situation, the appropriateness of the proposed change, implications of adopting the change, and the readiness of the school or group to cope with the disruption, pain, and instability brought on by the change. In many instances, a wise rejection of a change may be as worthy an accomplishment as a wise decision to implement one.

The purpose of this monograph is to provide practitioners, especially those who provide assistance to schools, with specific guides for diagnosing readiness for change. It is a tool to help school personnel and others make wise and deliberate decisions about adopting or rejecting changes.

There are five sections to this monograph. The first presents a perspective on schools as social systems composed of individuals and groups interlocked in organized ways. The second describes some reasons why schools are resistant to change. The third presents a set of conditions associated with a school's readiness to undergo change. The fourth is a discussion of some considerations about collecting diagnostic information. The fifth presents a list of resources, mostly annotated, for understanding and improving the possibilities of productive change.

Section I:

Three Levels of the School's Social System

The school is a social institution composed of many parts. It is a complex organization with diverse individuals and small groups connected to each other by formal and informal relationships, roles, norms, and routine interactions that provide stability. It is these features—and not the personalities or sheer stubbornness of school members—that create stability and resistance to change.

We identify these relationships and interactions by observing the behavior of people in schools on three levels: individual, group, and organization. In diagnosing readiness, this behavior can be interpreted in different ways, depending on your point of view. For example, a person who takes charge of a curriculum development task may be seen as satisfying a personal need for achievement, and/or adhering to group norms about sharing the workload, and/or fulfilling an organizational role. All these interpretations may simultaneously be "true." The important thing is to decide which level of interpretation offers the most useful viewpoint for understanding the behavior and taking effective action. The helper needs to use all three levels in diagnosing a school's social system to determine its readiness for change.

In this section we use the three levels—**individual, group, and organization**—to describe major factors that affect a school's readiness for change.

INDIVIDUAL

Actions and interactions of individuals, ultimately, make schools change or remain stable. We concentrate on two particular aspects of individuals that shape their response to change, namely motivation and perception. These social psychological variables describe individual behavior in terms of the ongoing dynamics of their interactions with others. We avoid explanations of individual action that depend primarily on static personality traits. This point of view focuses the diagnosis on only those factors which potentially can be changed to enhance readiness.

Motivation. Individual motivation can usefully be viewed in terms of goals that people try to reach. This view allows us to understand the individual's behavior as an attempt to reach those goals and to look for other ways to make those goals available as a way of influencing behavior.

We think that people try to reach four kinds of goals in their work: *affiliation, achievement, activity, and influence.* Further, groups and organizations create norms and relationships that provide for some level of satisfaction in attaining the goals. (For an expanded discussion of this way of viewing motivation, see Schmuck, Runkel, Arends, and Arends 1977.)

People have needs for *affiliation*—experiencing feelings of friendliness, warmth, and inclusion. We need *achievement*—feeling a sense of accomplishment. People have needs for *activity*—taking initiative. Finally, we have needs for *influence*—exercising some control over our lives and interactions with others.

Teachers and others seek to satisfy these motives—reach these goals—in work. Affiliation goals may be met by joining with others on some task, achievement by producing a creative lesson plan, influence by shaping the learnings of students, and activity by the variety of activities during a day. Of course, different people have different levels of each of these needs; some work harder to achieve a certain goal than others. What is important is to find the gaps between current and desired levels of satisfaction and to explore how a proposed change will affect the attainment of these goals.

There is a risk in trying to reach these personal goals. The person with whom we want to affiliate may reject our overtures, attempts to influence others may be rebuffed, and efforts to accomplish a task may result in frustration. People learn to protect themselves from failure: they come to accept lower levels of satisfaction when the risks of striving for higher levels are too great. People in schools (and, of course, in other settings) establish and maintain relationships that provide an acceptable level of satisfying each motive and a tolerable level of risk.

Much of the stability in schools comes from the fact that members come to expect and value these relationships. People accept the psychological safety and degree of satisfaction that they bring. An impending change disrupts the carefully constructed relationships, brings unpredictability to interactions and threatens at least a temporary decrease in the level of satisfaction. Change means abandoning familiar and comfortable ways of interacting with no guarantee that the new ways will be more comfortable or satisfying.

One task of the helper is to explore these fears with school members. By determining the current level of satisfaction and the desired level, and by examining the probable effects of a change on how these needs are satisfied, the helper can assist school members in deciding whether the benefits will be worth the disruption caused by a change.

Perception. Individual's responses to impending change are also affected by their perceptions of themselves *(self)*, their *situation*, the *proposed change*, and other persons involved *(helpers)*.

Perception is selective. People view their world through filters of past experience, self-perception, language, norms, and so on. We do not act on reality but on our images of it. Because of this selectivity, the meaning and significance of a proposed change for school personnel will depend on their values, understandings, and beliefs. Their view of the change will be colored by their experience with previous similar efforts and by their current situation.

Advocates may see mainly benefits of a change, losing sight of the disruptions it implies. School members may be more sensitive to how the change will disrupt their routines. Teachers are especially aware of the impact of

disruptions upon students: classroom management is more difficult when routines are upset, students react negatively when they see the teacher struggling with new practices, and learning suffers from experiments that don't work.

Because we automatically organize perception into patterns, we understand new things by mentally making them resemble what we already know. We then know how to think about the new thing since we have guides from past experience.

In particular, the image that people have of a proposed change will be shaped by their estimate of how it will fit their routines and relationships. Some people may see just extra work, others will perceive disruptions of relationships, and still others may be sensitive to how the change will alter patterns of status and influence among their colleagues.

The helper will not be seen as he or she is (or wants to be seen) but will be perceived in terms of people's experience with similar sorts of persons. When people find the label (or image) that fits the helper, they act accordingly. In effect, they say, "Oh, you're an administrator (or a woman, or a black, or someone from the state department, or whatever), now I know who and what you are." A major part of the helper's task is to establish an open and trusting relationship with people so that these images become more accurate.

School personnel and helpers need to explicitly describe their images of the change and each other. Staff members need to perceive each other's images to find similarities and differences, and the helper needs to lead the process of creating identical images so that effective action based on common understandings can be taken.

Individuals' responses to change, then, will be shaped in large part by their motivations and their perceptions; and these depend primarily on their current and past experience. A major job of the helper is to assist school members in sharing their images and stating their level of satisfaction. Mutual diagnosis can then find new ways to satisfy the motives and to create shared images to guide action.

We turn next to groups and how the characteristics of groups affect readiness for change.

GROUP

People in schools often join together in groups which accomplish tasks, bring influence to bear on others, and enable members to satisfy affiliative needs. To a great extent, individuals' behavior in work groups is shaped by group processes and interactions and by shared images of themselves and their situations. Even though teachers spend most of their time alone in their own classrooms, their membership in departments, grade level groups, and so on, influences much of their behavior. In particular, groups are powerful molders of behavior because of interdependence, norms, roles, cohesiveness, and shared images.

Interdependence. People interact in groups to accomplish work; they cooperate and depend on each other for information, support, and resources. When people are interdependent and need each other's help like this, their behavior is molded partly by their relationships. Changing any one person's behavior usually requires changes in their relationships with their colleagues. For example, if the principal begins using a new teacher evaluation system that depends on increased input from teachers, then they must change their behavior to give the new input. In short, most work is accomplished through reciprocal actions with others; changing one person's behavior means changing others' as well.

Further, people who are interdependent create stable ways of interacting so that they can predict and depend on each other's actions. They create relationships that are at least moderately satisfying in terms of the four motivations we stated earlier. Change means abandoning the old ways of interacting and establishing new ones, a step that is usually taken only with reluctance.

Norms. Norms are the formal and informal ground rules about "the way we do things here," and they have a powerful influence on behavior. Having norms brings safety and stability to interactions and relationships. Through norms we know what behaviors are required, tolerated, and prohibited in a particular setting. We know we will be rewarded for observing the norms and punished for violating them. For instance, many new teachers receive a lot of kidding about inappropriate dress or language; the underlying message is, "You haven't learned our norms here yet."

Because of norms, we can predict how others will respond to our actions and how they will behave toward us. Norms protect group members from embarrassing consequences of behavior that is not appropriate. They provide a measure of safety by defining the range of behavior that is acceptable.

Such norms are often a source of inertia. Since norms are created—explicitly or implicitly—to give stability in groups, introducing a change means abandoning the old norms and their stability and creating new ones.

Roles. Just as norms are expectations for how all group members should behave, roles are expectations about the behavior of people in particular positions. Some roles are formal (student, teacher, principal, etc.) while others are informal (note taker, coffee maker, humorist, and so on). We behave toward others according to our image of their roles. If we believe tha' the role of the principal is to handle all discipline cases, we immediately refer kids in trouble to him or her without taking action ourselves. When the others respond as we expect, the role definition is confirmed and strengthened.

Groups develop fairly stable expectations about the roles of their members, so it is difficult for one person to take on new behaviors unless others also alter their role conceptions and behaviors.

Cohesiveness. When people identify themselves with others as members of a group, they come to have feelings of solidarity and loyalty to the group. They value their membership in the group and want to protect it. These feelings of cohesiveness can be a powerful force that keeps individuals from changing their behavior in violation of group expectations, but it can also be an influential source of support if the group supports the change. The helper will want to identify the cohesive groups in a school and determine their feelings about the proposed change.

Shared Images. Like individuals, groups hold images of themselves and others, and they act on those images. Group members agree on ways of seeing the world, based on their common experience and the values, beliefs, norms, and self-perceptions that they share. For instance, as group members share their reactions to a common experience—say, a particular group of students or an inservice workshop—they create a common memory and picture that then forms the basis of their future actions.

A focus on groups, in summary, is the second level at which behavior can be diagnosed. To the extent that groups shape individual behavior, the helper needs to have an understanding of the dynamics of groups within the school and how they affect the decision to adopt or reject a change. The final level of interpretation is the organization as a whole.

ORGANIZATION

We view schools as organizations or systems, meaning that individuals and groups in them have specific functions and relationships. Each person and group is a part of the whole: they perform different kinds of functions that contribute to shared goals, and an observer can see patterns of formal and informal relationships, as well as networks of communication, that remain fairly stable even though individuals come and go. Further, the organization exists within a social environment that shapes the functioning of the organization as a whole.

Some theorists think of human systems in mechanical terms, comparing organizations to, say, clocks in which each part performs a given function and all the parts work together to tell us the time. Others use organic analogies, comparing organizations to a body in which individual parts have their separate jobs while the whole interacts with its environment and changes, grows, and dies. Both are useful images, though neither is a totally accurate picture of the complexity of a human system.

Here we discuss major aspects of school organizations that affect their capacity to respond to change.

Goals. Schools are goal-directed; they exist to reach certain kinds of objectives, and people in them work together to reach those objectives. Schools, though, often have conflicting and ambiguous goals. The "mission statements" or public goals of most schools and districts are usually so vague that they do not provide clear directions, standards for measuring progress, or guides for making choices. Schools have in them many different people and groups with competing values and philosophies, so reaching agreement on specific goals is very difficult. Moreover, schools do not have single goals. They strive to reach several goals at the same time, such as high reading scores, good citizenship, fiscal accountability, high staff morale, a winning football team, and even more. One result is that the effort that can be put into any one goal is limited by competition from the advocates of other goals for scarce organizational resources. The helper nearly always finds herself or himself working with school personnel whose energy and enthusiasm for a proposed change is severely limited by other goals and demands on their time. Another result is that any change effort requires a great deal of attention to the question of how it connects to some specific school or organizational goal.

Structure. Structure is the sum of the relationships of various roles to each other in terms of influence, authority, responsibility, function, and so on. Small elementary schools have simple structures, while large high schools are more complex. In contrast to organizations like the military which have tightly-controlled structures, schools are "loosely-coupled." That is, there is a great deal of autonomy for individuals and groups. Superiors such as central office

administrators can rarely mandate change. At the same time, the necessity to "go through channels" can be a major barrier to innovation and change. Helpers and school personnel need to identify the important parts of the organizational structure affected by a change and work with them to make the adjustments needed.

Roles. People in schools perform different functions which interlock to achieve organizational goals. Teachers have certain tasks, principals others, counselors still others, and so on. On the organizational level, most roles are fairly formal, and much of the school's stability comes from the interlocking of roles. individual's initiatives are limited by their interactions and responsibilities to other roles within the system. Principals cannot release students early without arrangements for bus transportation, teachers cannot take on extra duties without checking with provisions of the master contract, and so on.

Perhaps the most influential role in the school is the principal, but this influence is not exercised best by mandating or imposing change. For various reasons, it is difficult for a principal to mandate change that is not wanted by the staff. Rather, principals often function best as "gatekeepers," giving signals about whether new behaviors will be rewarded or not. The principal sets the climate of a school by giving cues about how important different parts of the school program and operation are. Some principals spend a great deal of time on discipline and control, while others attend to the physical plant, still others have a fondness for team sports, etc.

Climate. A school's climate has to do with people's feelings about being part of the school, the state of interpersonal relationships, whether or not needs are being satisfied, shared feelings of success or failure, and so on. The principal plays a key role in setting the climate of a school, but so do the socioeconomic composition of the student body, district norms and policies, the staff, and other factors. Climate is the *product of a school's norms,* which can be identified and altered more easily than can the more global term "climate." Readiness for change is particularly affected by norms about openness in communication (especially in emotional, pressure situations), collaboration, willingness to spend extra time in meetings and other tasks, and willingness to experiment with innovations. (We will speak to these issues in more detail in Section III.)

Environment. All organizations exist within a variety of social environments. For schools, the local neighborhood is one environment, legislative rules are another, the financial makeup of the community is another, and various education-related agencies (professional associations, text publishers, etc.) form yet another. Schools interact with and depend on individuals, groups, and organizations in their environment; schools also produce outputs that the environment needs. Change within the school organization usually requires some sort of change or accomodation within relevant parts of the environment. For example, a change in grade reporting systems requires new understandings and behaviors from parents.

In summary, schools are complex and multi-faceted systems. Individuals and groups within them have delicately-balanced relationships and interactions, a variety of goals shape behavior and demand attention, and many parts interlock so that change in any one part usually requires changes in other parts to accommodate the new behavior. Part of the task of diagnosis is to determine the state of things at individual, group, and organizational levels and to forecast how these levels will be affected by a proposed change. In the next section, we discuss why individuals, groups, and organizations are so often resistant to change.

Section I:

Review: Three Levels of the School's Social System

I. Individual

A. Motivation:

affiliation

achievement

activity

influence

B. Perception:

self

situation

proposed change

helper

II. Group

A. Interdependence

B. Norms

C. Roles

D. Cohesiveness

E. Shared images

III. Organization

A Goals

B. Structure

C. Roles

D. Climate

E. Environment

Section II:

Resistance To Change

We often speak of resistance to change as though it were a psychological trait or simply another label for sheer stubbornness. Neither of these images is true. Everybody resists some changes and welcomes others. In schools, resistance to change comes from a *fear of failure or evaluation* and hesitance to abandon familiar practices for new, untested ones; conceptions of the problem and perceptions of the proposed change, as well as low levels of collaboration; and ambiguous goals and lack of appropriate resources and rewards.

Many individuals have a fear of failure or being negatively evaluated. It is uncomfortable to expose one's self to colleagues while trying to master new routines, or to be closely watched by change advocates, helpers, and others anxiously monitoring the change to see if it succeeds. There is little reason for teachers to put themselves through that exposure, or to risk that failure, if they do not believe that the effort will produce good results.

Resistance to change also comes from one's perception of the problem. If the persons who are supposed to benefit from the change do not see a gap between the current situation and a more desirable one, there is little incentive to change. It may also be that school members do experience the gap, but do not see the proposed change as an appropriate solution. In that case the innovation is seen only as an irrelevant addition to an already overcrowded work day.

When confronted with a proposed change, most people perform a sort of mental calculus that *compares costs with benefits.* They make an estimate (often not consciously) of the change's probability of succeeding, how much improvement it will make, and how much energy will be required to implement it. People are understandably reluctant to take on changes with a low apparent probability of success, those that will seemingly make little difference, and those which require large amounts of energy to implement. What appears to be simple stubbornness in cases like these turns out to be the result of a fairly complicated calculation by school members.

Additionally, resistance often comes from *perceptions of the impact of the change on the politics of the school.* All but the most trivial changes will have some impact on the status, prestige, and access to resources of school personnel. Often a group trying an innovation is seen as the "in crowd" having the principal's favor; or teachers trying a new reading program have new materials and help from specialists that others lack. People are going to resent and resist changes that seem to lower their own standing and raise others'.

Schools are very difficult organizations to change because they have a peculiar combination of rigidity and looseness in their structure and processes. There is *little interdependence,* while individual autonomy, weak norms for collaboration, ambiguous goals, and scarcity of resources make attempts to change schools particularly difficult.

Teaching is largely an individual endeavor. *School members usually place a high value on autonomy,* and *norms supporting collaborative efforts are usually weak or nonexistent.* Because teachers receive their main rewards from classroom interactions and because they feel uninfluential in schoolwide matters, it is usually difficult to generate enthusiasm for changes which may upset classroom routines even when they benefit schoolwide ways of doing things. Entrenched habits and practices mean that teachers often have little skill in collaboration and see little payoff in trying collaborative arrangements.

Clear goals that guide action are generally lacking in schools. There are few shared goals—or at least few specific targets—that can serve as rallying points. This situation often promotes a great deal of disagreement over the utility of a proposed change due to different ideas of goals and competing philosophies of education. Further, because of lack of specific goals, there is little agreement about the best ways to reach them. Since the ends are not clear, it is hard to choose the appropriate means.

Also, *schools generally do not have energy and resources* that can easily be diverted from day-to-day tasks. Making changes requires some "extra" resources that are not already committed to routine operations, and schools often do not have this flexibility. Most of a district's budget goes to salaries and benefits, so there are few resources that can be treated as "risk capital" for purposes of innovation. Moreover, most people in schools—especially teachers—have rigid time schedules that allow little discretionary time that might be used for planning and implementing change.

Finally, *schools rarely have reward systems that encourage change and innovation.* Teachers who spend a lot of their own time in the extra effort to implement an innovation receive the same salary as teachers who simply put in their time in the classroom. Administrators who devote attention to a new project get no relief from the routine load of paperwork and reports. There are no "Christmas bonuses" of time or money to reward success and extra effort.

These conditions can be overcome, we think, but only with considerable skill and patience on the part of the helper and school members. A major task of diagnosing and enhancing readiness for change lies in assessing these individual, group, and organizational factors and how they will be affected by a proposed change. Only on the basis of a careful diagnosis can the helper and school personnel make an informed and careful decision about whether a proposed change genuinely merits the energy and disruption that successful innovation requires.

We now turn to a discussion of those conditions that affect a school's ability to undertake productive change. They are the factors that should be considered in making a deliberate decision to adopt or reject an innovation.

Section II:

Review: Resistance to Change

1. Fear of failure or evaluation
2. Cost-benefit calculation
3. Perceptions of impact on politics of school
4. Low interdependence
5. Strong norms of autonomy
6. Weak norms of collaboration
7. Lack of specific goals, few shared goals
8. Lack of energy and resources
9. Lack of rewards

Section III:

Conditions Of Readiness

In selecting conditions related to readiness, we have avoided environmental and societal issues upon which educators can have little immediate impact. While those conditions do have an influence on a school's capacity to change and improve, our intent is to focus on conditions *within* schools that can be altered during change efforts. Further, we have not cited all the pertinent literature or presented justifications for including some conditions and neglecting others. The conditions discussed here are those we have found to be most frequently related to productive change in schools in our own experience and our colleagues'.

We have not tried to attach numerical values to the conditions. Given the present state of knowledge, doing so would be sheer guesswork. Further, for these kinds of conditions there is no cut-and-dried guide: it is impossible to say that a score of 74 means reject while a score of 76 means adopt. The factors interact with each other, and so what counts is a school's profile on a number of the conditions rather than its score on any one of them.

Many of the conditions have been empirically verified: research has demonstrated their importance. Others are drawn from our experience in working with schools. We have been quite selective in listing the conditions, and we have good reason to believe that all of them are important to know in diagnosing readiness for change.

We group the conditions into *six clusters, dealing with accessibility of resources and support, internal press for change, stability of the staff, skill in collaboration, norms about collaboration, and risk-taking.* For the sake of convenience, we usually refer to "the school" as the unit making the change; the reader should substitute "the department," "the teaching team," or whatever term is appropriate to the particular group in question. In the next section we discuss some ways of diagnosing and improving readiness.

CLUSTER 1: Accessibility of Resources and Support

1.1 **Extent and kind of technical knowledge needed to implement a change.**
This condition includes the particular skills, knowledge, and expertise that are the focus or content of the change. For example, knowledge of set theory and other mathematical concepts are part of the content of a new math program, while skill in questioning and summarizing may make up the heart of a new teaching strategy.

1.2 **Availability of technical knowledge within the school.**
Here we mean the extent to which technical knowledge about the content of the change already exists among the school's members. Where that knowledge is present among staff members, the challenge is to tap that resource. In other cases the school must look to outside sources for the necessary knowledge and skills.

1.3 **Accessibility of technical knowledge and expertise outside the school.**
The concern here is whether key resources are available in other offices, agencies, or schools, and whether those resources are easily obtained and available over a period of time. If outside resources are readily available, the school is more likely to reach out and to use them.

1.4 **Availability of financial resources.**
The question here is not only whether there is money available, but also what guidelines, procedures, program reviews, and reports are required by the funding agency—i.e., what strings are attached to the monies. The key point is whether the additional funds will enable the staff to experience improvements or simply bring additional demands and excessive regulations and constraints that will compound the change effort and complicate the work of those involved.

1.5 **Support from key administrators in the district.**
Ideally, district administrators should provide public support to a change effort in the form of money, services, materials, facilities, and recognition. One form of support that is often crucial is the relaxation of "standard operating procedures" during the early stages of an effort. At a minimum, administrators must provide a kind of "benign neglect." When an administrator is opposed to a change effort, the prognosis for success is surely less favorable.

The conditions listed in this first cluster are usually the first questions asked by those considering a change. All too often, the availability of outside resources (1.3 or 1.4) is the major impetus for initiating change. But this cluster of conditions is only one of several; it is necessary but not sufficient for effective change.

CLUSTER 2: Internal Press for Change

The conditions in this cluster are described as *proportions* of an attitude, preference, or perception. That is because their effect does not come from any particular individual or from the simple average among individuals. Nor does the effect necessarily operate through a norm that rewards high levels of the condition. Rather, their effect comes through the "critical mass" or total volume within a staff. We cannot state even approximate amounts of each condition required. We can say that if some proportion of members (in some cases a simple majority or an even larger proportion in others) hold similar attitudes, preferences or perceptions with respect to the condition, then the chances for change within the school are likely to be enhanced.

2.1 **Proportion of individuals who are dissatisfied with the present situation.** Here we are particularly interested in the proportion of individuals who share feelings of dissatisfaction with the way things are. If the proportion of dissatisfied individuals is small, little change is likely to result. If, however, the proportion is too high and the degree of dissatisfaction too great, the result may be frenzied, haphazard efforts that reduce the likelihood of orderly, planned change.

2.2 **Proportion of individuals who value the proposed target.** By target we mean the better or "ideal" state toward which the change is aimed. Optimally, the target condition represents a clear, obtainable state that members can communicate clearly to themselves and others, use to guide actions and choices, and recognize when it is reached. The key indicator of this condition is the proportion of people who value the target and share their preferences with others.

2.3 **Proportion of individuals who have confidence that the proposed change will bring benefits.** This condition has two important aspects. The first is the shared belief that the proposed change is appropriate and adequate. That is, people believe that it will in fact move the school toward the target. This judgment usually includes some comparison of perceived costs and benefits of the change. If the benefits are seen as great and the costs as comparatively low, the proposal will probably be judged as adequate.

The second aspect is the shared belief that the proposed change can withstand the reactions, objections, and misgivings of those outside the school. For instance, a school may propose to schedule minimum days each Friday to provide common planning time for teachers (the target). That proposal may not receive widespread support from the school's teachers if they believe that parents and district administrators would object. This second aspect is related to the support of key administrators (1.5) and represents a belief that the proposed change will not cause such severe reactions or be modified by others to such an extent that its effects are greatly diminished.

CLUSTER 3: Stability of the Staff Undergoing Change

The heading of this cluster at first glance presents a paradox: how can a system undergoing change be stable? The major concern raised by the conditions in this cluster is whether the school is moving toward change from a state of relative calm or from one of frantic and harried activity. In the latter case, the school's readiness for change is likely to be reduced by its unhappy history.

3.1 **Proportion of turnover of staff membership.**
The issue here is the turnover of members who are crucial to the change effort. If the turnover rate is high in terms of numbers or frequency during the change, the likelihood of carrying the change through is reduced.

3.2 **Commitment of key administrators to remaining in current positions for the duration of the change.**
This condition describes the proportion of individuals who have confidence that key administrators will continue in their positions throughout the change. If too many people believe that key administrators will voluntarily or involuntarily move on during the change, they will probably be unwilling to count on continued administrative support, be less likely to take the change seriously, and be less able to commit their energies to it.

3.3 **Proportion of individuals attempting other changes.**
Here we refer to those individuals participating in current or recent change efforts. Since the energies and resources of people are limited, this condition is simply a counsel not to attempt too much at one time.

3.4 **Proportion of the staff experiencing stress due to the complexity of the school organization.**
This condition refers to the proportion of individuals reporting confusion, disruption, and stress due to the complicated structure of the school organization. This complexity may result from an excessive number of groups (committees, task forces, etc.), specialization and differentiation of roles, tasks, and responsibilities, scheduling, or other reasons. The more that members experience stress and lack of a comfortable stability in their work, the less will be their ability to cope with the additional demands that a change effort makes.

CLUSTER 4: Skill in Collaborative Group Work

Much of the work during a change occurs in groups such as committees, planning task forces, and the like. The success of a change is strongly affected by the skill and effectiveness with which people carry out their work in these groups. This cluster describes a set of conditions that are essential to effective group functioning. (For an extended discussion of the skills of effective groups, see Schmuck, Runkel, Arends, and Arends 1977, Chapters 3 through 8.)

4.1 **Group skill in communicating accurately.**
This condition represents a set of skills such as checking the meaning and intentions of communications and actions, describing one's feelings openly and directly, helping others achieve clarity, and sharing with others how their communications and actions affect group members.

4.2 **Group skill in making clear decisions.**
Here we mean the group's ability to make decisions that are clear, understood, and shared by all members. We do not mean that all members are in complete agreement about a decision but rather that they understand what the decision was and why it was made. We also mean the group's ability to use appropriate decision-making methods and involve appropriate persons in the decision-making process.

4.3 **Group skill in conducting effective meetings.**
This condition includes skills such as setting agendas, staying on topic, attending to members' needs for participation, using a convener or facilitator, keeping accurate records, and following up on actions taken and decisions made.

4.4 **Group skill in working effectively with diverse views, opinions, and values.**
This condition represents a group's skill in managing the tensions and conflicts that inevitably result from the mixing of different perceptions, values, lifestyles, and cultures. Effective groups turn those conflicts into creative solutions and pressures for change. It largely depends on the group's ability to clarify differences, accept the value of those differences, and seek some form of creative compromise that is at least partially satisfactory to all parties.

4.5 **Group skill in solving problems.**
This condition depends on the presence of the other group skills as well as on the group's having a commonly understood procedure for identifying, analyzing, and managing problems.

The five skills of collaborative work listed here are highly interdependent. The absence of one will greatly diminish the effectiveness of the others. Additionally, the presence of these skills is not always sufficient for effective group work. For a group to be effective it must also have norms which reward the use of collaborative group skills.

CLUSTER 5: Norms Supporting Collaborative Group Work

Norms are shared expectations that a particular set of behaviors will be approved or disapproved within a particular context. For example, if group members find that every time they express feelings of frustration with a problem, other group members remain silent until someone suggests that "we get back to the topic," people will soon stop expressing feelings. Task groups have many norms like this. We list here those we have found to be related to effective group work.

5.1 **Norms supporting collaboration.**
By this condition we mean there is a shared expectation that it is appropriate for members to work together collaboratively on common tasks. Indicators of such a norm might include an emerging interdependence among staff members, such as clusters of teachers jointly developing curriculum units, or other instances of sharing ideas, responsibilities, and tasks.

5.2 **Norms supporting continued communication in emotional situations.**
If a group were to "take a break" every time tempers started to flare or to call a halt every time emotions start to overflow, and wait until members regain their composure, it is probable that the group is depriving itself of the reasons for those emotional reactions. If, on the other hand, the group looks on a member's emotional reaction to task work as valuable information and tries to support expressions of feelings by continuing to communicate in those situations, it will be able to tap a wider range of its member's responses and resources. We believe that expressions of feelings are valuable sources of information because people's responses to the task are emotional as well as cognitive. The group that recognizes expressions of feelings as legitimate is more likely to have members that understand and support decisions and actions. Greater task effectiveness and individual satisfaction result from a full sharing of both emotional and cognitive responses to the task at hand.

5.3 **Norms supporting perseverance in group tasks.**
We refer here to expectations that the group perseveres on a task even though the work has been frustrating and difficult. This condition is represented by the degree to which members stick with a task and see it through to completion. Indicators of perseverance include willingness of members to attend extra meetings to finish their work and to give up some of their own time to get something done. This condition is also related to the previous one about persevering in the face of emotional expression or discomfort.

5.4 **Norms supporting individual disclosure of feelings, worries, or frustrations with the task.**
This condition is related to 5.2 but differs in that it represents a group's efforts to elicit members' worries and frustrations and to encourage members to confront the group with their personal needs and dissatisfactions.

5.5 **Norms supporting third-party helping.**
By this we mean the degree to which group members share the expectation that it is appropriate for a third group member to help others in clarifying communication, resolving differences, or understanding one another's point of view. To borrow an example from Runkel, *et al* (1979). Teacher A may say that the third-grade room doesn't have enough art materials, but Teacher B replies that there aren't enough occasions in third graders' schedules for them to experience much individual attention. Teacher A may leap to the conclusion that B thinks there *are* enough art materials. If Teacher C intervenes at this point to clarify whether A and B agree or not, then C has taken the role of a third-party helper. If the group approves of Teacher C's behavior, that indicates that the group has a norm supporting third-party helping.

The five conditions supporting persevering, collaborative group work are interrelated, and the presence of one affects the strength of another. Their influence in a group has a direct bearing on the group's ability to use its collaborative skills (Cluster 4) and on the ability of the school to undergo a change productively.

CLUSTER 6: Spirit of Risk-Taking

The major question in this cluster is whether there is a spirit of experimentation, of trying things out even though they may not be perfect, and of committing one's self to new tasks even in the face of potential failure.

6.1 **Proportion of individuals who are willing to risk new action on behalf of the school.**
This kind of risk-taking includes the willingness to take on new tasks for which members have not been specifically prepared, willingness to change role behavior, and willingness to assume new responsibilities.

6.2 **Willingness of key administrators to make reciprocal changes in their behavior.**
This willingness to make reciprocal changes is important in supporting the changes of others. If key administrators are unwilling to risk reciprocal change in their own behavior and instead say, "You go ahead and change, but don't ask me to do so," the likelihood of successful change is greatly diminished.

6.3 **Presence of charismatic leadership.**
Here we are concerned with the extent to which those in leadership positions can create a common vision that is valued by many members, the leaders' ability to instill in members a sense of power and control over their own situation—both individually and collectively, and the leaders' ability to instill in members a sense of urgency, of needing to take initiative and action soon.

6.4 **Proportion of individuals willing to undergo training in new skills and behaviors.**
Not only must sufficient numbers of members be willing to undergo training early in the sequence of change, but they must also be willing to commit themselves to sufficient amounts of training. The amount of training needed to insure productive change depends on the type of change and the present readiness of the school. However, we have found that for some types of school-wide change at least 25 hours of training were needed before beneficial effects were experienced (Runkel, Wyant, and Bell 1976).

6.5 **Proportion of individuals experiencing stress, anxiety, or threat, regardless of the source.**
If too many persons are anxious about their jobs, or worried about transfers, administrative reviews, or other potential threats, their collective sense of excitement and experimentation will be reduced. The uncertainties associated with change become, in these instances, simply one risk too many to take in uncertain times.

These 27 conditions are, we think, crucial factors that need to be examined when diagnosing a school's readiness for change. Obviously the list is not exhaustive, but a comprehensive list would be so cumbersome as to be unusable. For a very thorough discussion of these kinds of conditions, see Runkel *et al* (1979). The key to successful diagnosis is to develop a strategy that will generate information about these conditions and to share the information with participants so that an informed decision can be made on the basis of ample data about the current state of the school. In the following section we discuss data collection strategies.

Section III:

Review: Conditions for Readiness

Cluster 1: Accessibility of Resources and Support

1.1 Extent and kind of technical knowledge needed to implement a change
1.2 Availability of technical knowledge within the school
1.3 Accessibility of technical knowledge and expertise outside the school
1.4 Availability of financial resources
1.5 Support from key administrators in the district

Cluster 2: Internal Press for Change

2.1 Proportion of individuals dissatisfied with the present situation
2.2 Proportion of individuals valuing the proposed target
2.3 Proportion of individuals who have confidence that the proposed change will bring benefits

Cluster 3: Stability of the Staff Undergoing Change

3.1 Proportion of turnover of membership of the staff
3.2 Commitment of key administrators to remaining in current positions for the duration of the change
3.3 Proportion of individuals attempting other changes
3.4 Proportion of the staff experiencing stress due to the complexity of the school organization

Cluster 4: Skill in Collaborative Group Work

4.1 Group skill in communicating accurately
4.2 Group skill in making clear decisions
4.3 Group skill in conducting effective meetings
4.4 Group skill in working effectively with diverse views, opinions, and values
4.5 Group skill in solving problems

Cluster 5: Norms Supporting Collaborative Group Work

5.1 Norms supporting collaboration
5.2 Norms supporting continued communication in emotional situations
5.3 Norms supporting perseverance in group tasks
5.4 Norms supporting individual disclosure of feelings, worries, or frustrations with the task
5.5 Norms supporting third-party helping

Cluster 6: Spirit of Risk-Taking

6.1 Proportion of individuals who are willing to risk new action on behalf of the school
6.2 Willingness of key administrators to make reciprocal changes in their behavior
6.3 Presence of charismatic leadership
6.4 Proportion of individuals willing to undergo training in new skills and behavior
6.5 Proportion of individuals experiencing stress, anxiety, or threat, regardless of the source

Section IV:

Collecting Diagnostic Data

There are a variety of ways of collecting information about the conditions, of readiness discussed in Section III. *Our intent here is to discuss briefly the task of diagnosing the conditions in the school and ways in which they can be used in making a decision about change.* It is beyond the scope of this monograph to provide a complete discussion of either the methods or procedures of diagnosis; the annotated bibliography in the next section lists several sources for further study.

GENERAL CONSIDERATIONS

Like any data collection, diagnosis of the conditions in the school must be governed by some general considerations that affect the process of diagnosis and the use of the information collected. Among the important considerations are:

Importance. Generally, the larger the change and the more people who are affected by the change, the more effort diagnosis will require. Further, early discussions with key members of the school will probably give the helper some clues about the relative importance of the various conditions.

Cost. The cost of the diagnosis, in terms of both money and the time and effort required of the helper and the school staff, must be acceptable. The strategies we recommend below are generally not costly in terms of money, but it does take time and effort to design the method, use it, and then interpret and use the results.

Feasibility. This is a question of whether the information can be obtained on terms that are mutually acceptable to the helper and to the school staff. The helper needs to decide whether the proposed strategy can be carried out without undue disruption for the staff or delay in obtaining results, and in a form that is readily usable for guiding decisions.

Validity. Here we simply mean whether the helper has confidence that the information will be trustworthy and will contain useful answers to the questions he or she asks. Among the pertinent questions are whether the relationship between the school members and the helper is good enough so that they will reveal their true feelings and opinions, whether the persons who provide the responses have sufficient information to answer, whether the appropriate people are being questioned, and whether the right questions are being asked.

There is no single right way to gather information about a particular condition. One must make decisions about strategies based on consideration of the *kind of information* to be collected, the *person(s)* from whom the information is to be obtained, the *situation* in which the information is sought, and the *method* (or methods) for gathering that information.

As to the *kind of information* to be collected, some of the conditions refer to attitudes, expectations, or other kinds of information that exist only in individuals' minds. Others call for information about individual or group behavior, i.e., actions that could be observed by another person. The *person(s)* from whom the information is to be obtained generally should be those persons who will be affected by carrying out the change as well as those persons who are in some way interdependent with them. Recalling our earlier discussion of the reciprocal nature of behavior and role relationships, it would be wise to obtain information from those who regularly interact with the persons implementing the change. For example, if the persons making a change comprise a department, it would be well to obtain information from the principal about a variety of relevant conditions, especially those having to do with willingness of the administrator to make reciprocal changes in behavior, expectations for remaining in his or her current position, and so on. As to the *situation* in which the information is obtained, the helper must consider whether that situation is conducive to a free flow of information, whether the respondent has enough trust in the helper to share important feelings and opinions, and so on. As to the *method* for collecting information, the helper has a variety of options which are described below.

Two further considerations merit special mention. The first is confidentiality. It is our experience that school members must be assured that their responses will not be individually identified, so that they receive no punishment for sharing information with the helper. One way to do this is to assure the person that all data will be reported only in aggregate and anonymous form so that individuals are not identified. Another way is to specifically ask the respondent if there is any information she or he does not wish to have shared even anonymously. Another is to describe in as much detail as necessary what uses will be made of the information received from her or him. The second consideration is reactivity. By this we mean the extent to which the individual is likely to feel anxious about giving information or in some other way react to the information-collecting process itself. Some reactivity is unavoidable when the method is a self-report one such as interview or questionnaire. Perhaps the best way to deal with reactivity is to establish a climate of trust so that persons feel safe in revealing their opinions and feelings, and to use a variety of methods to gather information about the same condition.

DATA COLLECTION METHODS

Nearly all methods of diagnosis fall into one of three categories: self-report methods, observations, and trace records. Self-report methods include interviews, questionnaires, and logs; observation usually means a systematic way of watching a person or group in a particular situation; and trace records include examination by the helper of records that the school keeps for itself, such as memos, minutes of faculty meetings, and the like.

It is our opinion that the conditions listed in the previous section can best be assessed by questionnaires, interviews, and observations. Each method, of course, has its advantages and disadvantages.

Questionnaires. The standard check-response or short written questionnaire is very familiar to all educators. The advantages of questionnaires are that the written questions are uniform from respondent to respondent, a large amount of information can be obtained relatively quickly and cheaply, and one can gather a wide variety of kinds of information, ranging from "hard" data such as characteristics of the respondents or situation to "soft" data such as feelings and opinions of individuals. The disadvantages of questionnaires are that it is usually difficult to know if the question has the same meaning for all respondents, the individuals who answer are limited in the kind of information they can give to that asked by the survey instrument, and the answers are often superficial.

Interviews. Sitting down with school members for structured interviews can produce much the same kinds of information as questionnaires, with important differences. The advantages of interviews are that the respondent has a chance to explain his or her answers at length and to reveal more subtle shades of meaning than is possible on questionnaires. The disadvantages of interviews are that they are extremely time consuming, the quality of the information depends on the rapport between interviewer and respondent, if more than one interviewer is involved they tend to approach the same interview instrument in different ways, and it is sometimes difficult to compare answers given by several respondents.

Observations. The best way to obtain some kinds of information is to watch individuals or groups at work and record one's perceptions of what is happening. In this way, the helper can obtain information that is not colored by the selective perception, anxieties, and reactivity of school members. The advantages of observation are that the data are collected by an outside person who is presumably more objective than are school members, it is a more accurate record of the occurrence of *behavior* than can be obtained by self-report methods, and the information obtained can be cross-checked with interview or questionnaire responses to get a sense of the accuracy of individuals' perceptions. The disadvantages are that observation is a time-consuming process, the information obtained is filtered through the biases and limitations of the observer; there tends to be substantial variation in the interpretations made by two or more observers, and observational data do not capture the personal meaning of events for the participants.

How does the helper choose which of these methods to use? The answer depends on a complicated variety of factors, many of which we have already mentioned. The cost, feasibility, and kinds of information to be obtained are among the several factors to be considered. In some cases, the nature of the condition itself suggests the method for collecting data. Those conditions which refer to the proportions of individuals holding certain attitudes or expectations are probably best assessed through self-report measures. Those conditions which describe group norms or actions are probably best measured by observation of the group in action.

In general, our main recommendation is to use a combination of interview and observation. Unless the group in question is quite large, there are several reasons for preferring interviews to questionnaires. The main one, perhaps, is that interviews allow for fuller explanations and more examination of the particular meaning of responses than do questionnaires. Another advantage is that the interview process itself builds trust and rapport between the school members and the helper. Interviewing can be a way in which the helper establishes herself or himself as a credible and trustworthy person, one who is perceived as helping rather than hindering.

Self-report measures, however, are limited, as we have noted. People tend to be more generous in their estimates of their own and others' behavior than is actually the case. For instance, it is not uncommon for members to describe their group as having norms supporting openness of communication during emotional situations when an outside observer would see few if any instances in which group members respond to and support expressions of feelings. Our recommendation, then, is to supplement interview data with information gained through observations of groups at work in their natural settings.

As to specific methods of obtaining information, consult the sources listed in the annotated bibliography. In particular, Schmuck, Runkel, Arends, and Arends (1977) provide a wealth of ways to collect information on the conditions in Clusters 4 (skill in collaborative work) and 5 (norms supporting collaborative work). An excellent discussion of interviewing strategies and techniques is the article by Jones listed in Section V.

USING THE INFORMATION

Diagnosis and gathering information is not an end itself. **The purpose of doing diagnosis is to build a basis upon which to make decisions and take actions.** One implication of this assertion is a recommendation that the helper collect only that information which clearly and directly has bearing on a decision about action. People have a tendency to collect too much information during diagnosis, thinking, "oh, that will be interesting to know," when the information often does not lead to a decision. Another implication is that it is vital, in our opinion, to share the information obtained with the school or group making the change so that they have access to the same basis for decisions as the helper.

Diagnosis should be mutual: both the helper and the school staff should share the initiative and responsibility for obtaining the information needed to make a decision about adoption or rejection of a proposed change. School personnel need to be involved from the outset in determining the questions to be asked or observations to be made and in suggesting the most feasible ways for obtaining the information. The following process, in our experience, has proven a useful way to conduct mutual diagnosis:

1. The helper and key members of the school (perhaps a steering committee) *brainstorm possible topics for diagnosis,* using the conditions listed in Section III as a guide.

2. The helper—or some other skilled resource person—*drafts a tentative questionnaire, interview schedule, or observation guide.*

3. The helper and key members then *review the draft and make a final decision about data collection strategy.*

4. After the information from questionnaire, interview, and/or observation is collected, the helper *makes an initial analysis of the information, tallying numbers and listing comments in full.*

5. The *data obtained is then reported* in easily understandable form to relevant school members, who can then work with the helper to use that information to make a decision about adoption or rejection.

The last step is called **"data feedback."** Its purpose is to share information with school members and to stimulate a discussion of their sense of their own readiness for change. It is necessary for members to share their reactions (small groups of four to six persons work best for this activity) to the information and to identify for themselves the state of their readiness. One typical result is that members become more aware of the feelings and opinions of their colleagues, so that they are heartened to find that "I'm not the only one who feels like that." Another common reaction is for members to discuss the meaning of results, looking for reasons why the aggregate of tallies does not match individuals' predictions. The data should be reported to school members in an event that allows ample time for sifting the information, discussion of their reactions to it, and opportunity to answer the question, "Now that we have this information, what do we want to do about it?"

A CONCLUDING NOTE

We believe that it is important to have information about as many of these conditions as is feasible. At the same time, to insist that each and every condition be favorable before attempting change would probably bring all innovation to a standstill. The set of conditions is intended as a guide or checklist to assist the helper and school members in focusing on the major factors that are relevant to readiness to make a change. The important thing is to use the information gathered about these conditions as a springboard for discussion and decision.

There are probably three possible responses to information about the state of these conditions in a school. They are:

1. The indicators are favorable, let's go! or
2. The indicators are so unfavorable that we really shouldn't think of trying it, or
3. Well, the results are mixed; some conditions are in good shape but others aren't; we should look at the state of those others before we do anything.

The third response will probably be the most common. That result presents a dilemma to the helper and the school members: go or no-go? Our recommendation is that the helper engage the school members in a process of determining what can be done about the conditions that are questionable, and whether the effort is worth the disruption and expenditure of energy that it will entail. The decision is not ours to make, nor is it the helper's. Rather, it is up to the school members who must actually carry out the change to determine their readiness and share their perceptions with colleagues.

There is no magic wand to wave to enhance readiness. We can, though, say that time and energy spent in assessing readiness and in sharing feelings and opinions about a proposed change before actually attempting it are never wasted. Obtaining and sharing this information before taking action is the only way we know to build a solid basis from which to launch a change effort.

Section IV:

Review: Collecting Diagnostic Data

I. General Considerations

   A. Importance

   B. Cost

   C. Feasibility

   D. Validity

II. Data Collection Methods

   A. Questionnaires

   B. Interviews

   C. Observations

III. Using the Information

   A. Build a basis upon which to make decisions

      1. Brainstorm possible topics for diagnosis

      2. Draft a tentative questionnaire, interview schedule, or observation guide.

      3. Review the draft and make a final decision about data collection strategy.

      4. Make an initial analysis of the information, tallying numbers and listing comments in full.

      5. Report the data obtained to relevant school members.

   B. "Data Feedback"

Section V:

Additional Resources

In this section we present 27 resources, most of them annotated, for further reading on the topics of diagnosis and planning educational change. The resources are listed under two headings. The first concerns the general processes of school change and working with school staffs. The second is a listing of resources for selecting data collection strategies, designing instruments and methods, and analyzing and using the information gained.

Resources for School Improvement and Change

Arends, Richard I. and Jane H. Arends. *Systems change strategies for the helping professional.* New York: Human Sciences Press, 1976. ERIC order number ED 124 868.

This monograph concentrates on processes of change in schools and strategies for promoting change. It includes a rationale, describes schools as social systems, reviews group processes, presents tools and examples, and has an annotated bibliography.

Baldridge, J. Victor and Terrence E. Deal (Eds.) *Managing change in educational organizations: Sociological perspectives, strategies, and case studies.* Berkeley: McCutchan, 1975.

The authors emphasize the need to apply the knowledge of social science research and the experience of practitioners to school change. Articles deal with three elements needed to understand change processes: A comprehensive organizational perspective, familiarity with strategies, and practical experience with educational change.

Bentzen, Mary M. and Associates. *Changing schools: The magic feather principle.* New York: McGraw-Hill, 1974.

Based on a five-year study of school change, this study presents variables that appear to be related to change.

Bentzen, Mary M. and Kenneth A. Tye. "Change: Problems and prospects." In John I. Goodlad and Harold G. Shane (Eds.) *The elementary school in the United States.* (72nd Yearbook, Part II, National Society for the Study of Education.) Chicago: University of Chicago Press, 1973.

A review and synthesis of the accumulation of knowledge about the nature and use of change strategies. The authors propose that schools be viewed as social systems, that they become self-renewing, and that they "will either do it themselves or it won't get done."

Berman, Paul and M. W. McLaughlin. *Federal programs supporting educational change, Vol. IV: The findings in review.* Santa Monica: RAND Corporation, R-1589/4-HEW, 1975.

An influential volume that describes the conclusions of the RAND study about what works and what doesn't in federally-supported school change programs. The authors note that mutual adaptation, locally-developed materials, inservice training, and explicit institutionalization are needed.

Berman, Paul, Milbrey McLaughlin, and others. *Federal programs supporting educational change* (eight volumes). Santa Monica: RAND Corporation, 1975 (Volumes 1-5); 1977 (Volumes 6-8).

Emrick, John and Susan M. Peterson. *A synthesis of findings across five recent studies of educational dissemination and change.* (Draft) Menlo Park, California: Stanford Research Institute, 1977.

Emrick, John, Susan M. Peterson, and Rekha Agarwala-Rogers. *Evaluation of the national diffusion network, Part I: Findings and recommendations.* Menlo Park, California: Stanford Research Institute, 1977.

Goodlad, John. *The dynamics of educational change: Toward responsive schools.* New York: McGraw-Hill, 1975.

Havelock, Ronald G. *The change agent's guide to innovation in education.* Englewood Cliffs, New Jersey: Educational Technology Publications, 1973.

A step-by-step description, with case studies, of Havelock's six-stage process of educational change. It includes many suggestions and guidelines for strategies, as well as a large list of resources.

Hilfiker, Leo R. "Factors related to the innovativeness of school systems." *Journal of Educational Research, 1970, (64), 23-27.*

The author found five major variables related to innovativeness: Social support provided by the principal, problem-solving adequacy of staff meetings, satisfaction with amount of time devoted to problem solving in staff meetings, perceived powerlessness in system faculty and administrative meetings, and openness and trust as norms of the system.

Mann, Dale. "For the record: Making change happen?" *Teachers College Record,* 1976, 77(3), 313-322.

Marcum, R. Laverne. *Organizational climate and the adoption of educational innovation.* Logan: Utah State University, 1968. ERIC order number ED 023 158.

Data from thirty schools in five western states indicate that schools involved in innovative practices were also marked by open climates, higher per-pupil expenditures, younger staff, lower tenure, and large number of staff.

Miles, Matthew B. (Ed.). *Innovation in education.* New York: Teachers College, Columbia University, 1964.

A somewhat dated but still exceptionally useful compendium of articles about many aspects of school change. Especially useful is Miles' summary chapter, "Some Generalizations." He reviews the conclusions of articles in the book about characteristics of the innovation and of innovators, aspects of the innovating organization, and different kinds of change processes.

Morrish, Ivor. *Aspects of educational change.* New York: Wiley, and Sons, 1976.

Morrish presents a host of mechanisms and processes related to school change. He offers several conceptual frameworks, and discusses topics such as sources and types of innovations, change agents, systems characteristics of schools, characteristics of innovators and resisters, procedures for planning and implementing change, and methods of evaluation.

Runkel, Philip J., Richard A. Schmuck, Jane H. Arends, and Richard P. Francisco. *Transforming the school's capacity for problem solving.* Eugene: Center for Educational Policy and Management, 1979.

This document represents another step in the continuing effort by the Strategies of Organizational Change program at CEPM to generate a useful theory and technology of school improvement. The discussion ranges over the behavior of individuals, groups, organizations, and schools in their environment. The authors explain how dealing with problems at one level impinges on problems at other levels. Conditions in urban schools are the express context of the discussion. Practical guidelines for taking steps toward organizational problem-solving are given.

Runkel, Philip J., Spencer H. Wyant, and Warren E. Bell. *Organizational specialists in a school district: Four years of innovation.* Eugene: Center for Educational Policy and Management, 1976. ERIC order number ED 111 107.

This study describes a multi-year project to improve the self-renewing and problem-solving capacity of a school district. The most important outcome was the establishment of a cadre of organizational specialists who helped schools and administrative groups initiate change and improve organizational functioning. Including description, theory, and data, the volume contains much of the empirical work on which discussions about conditions for readiness in this monograph are based.

Schmuck, Richard A., Donald G. Murray, Mitchell Schwartz, Mary Ann Smith, and Margaret Runkel. *Consultation for innovative schools: OD for multiunit structure.* Eugene: Center for Educational Policy and Management. 1975.

Schmuck, Richard A. and Jack E. Nelson. "The principal as convener or organizational change." *Research Reports in Educational Administration, 2(2).* Bureau of Educational Research, University of Colorado, Boulder, 1970.

The authors propose that the principal convene faculty, staff, and student groups to help bring conflict into the open and work on organizational problems systematically.

Schmuck, Richard A. and Philip Runkel. *Organizational training for a school faculty.* Eugene: Center for Educational Policy and Management, 1970.

Schmuck, Richard A., Philip J. Runkel, Jane H. Arends, and Richard I. Arends. *Second handbook of organization development in schools.* Palo Alto: Mayfield Press Publishing, 1977.

The second handbook is a guide to change in education using the theory and technology of organization development. It includes a wealth of data-collection strategies and instruments, exercises for improving group and organizational functioning, and readings on theory and practice. It includes chapters on theory, diagnosis, improving communication, solving problems, making decisions, conducting meetings, managing conflict, setting goals, assessing progress, designing interventions, and institutionalizing a cadre of organization development specialists.

Tye, Kenneth A. and J. M. Novotney. *Schools in transition: The practitioner as change agent.* New York: McGraw-Hill, 1975.

Resources for Diagnosis and Data Collection

Fox, Robert S., M. B. Luszki, and Richard A. Schmuck. *Diagnosing classroom learning environments.* Chicago: Science Research Associates, 1966.

This volume includes specific diagnostic instruments for measuring several features of classroom life, as well as suggestions for using the instruments.

Fox, Robert S., Richard A. Schmuck, E. Van Egmond, M. Ritvo, and C. Jung. *Diagnosing professional climates of schools.* La Jolla: University Associates, 1973.

The authors provide thirty field-tested instruments for diagnosing various aspects of school climate and suggestions for the use of each instrument.

Houston, W. R. *et al. Assessing school/college/community needs.* Teacher Corps Development Center, Center for Urban Education, University of Nebraska (no date).

This book includes an extensive discussion of the theory and practice of needs assessment, with suggestions for constructing, analyzing, and using a variety of instruments.

Jones, John E. "The sensing interview." *1973 Annual Handbook for Group Facilitators.* La Jolla: University Associates, 1973.

This article is a very thorough discussion of the objectives, advantages and disadvantages, and methods of conducting individual interviews. It includes suggestions as to topics, verbal techniques for the interviewer, the sequence from design to analysis, and potential problems.

Additional Resources

Kahn, R. L. and C. F. Cannell. *The dynamics of interviewing.* New York: Wiley, and Sons, 1957.

Although old, this book has useful information about how to design and construct questionnaires and interview schedules, and it describes the skills needed for effective interviewing.

Oppenheim, A. N. *Questionnaire design and attitude measurement.* New York: Basic Books, 1966.

This book is a do-it-yourself text on designing questionnaires, framing questions, making rating scales and check lists.

Watkin, B. R. *An analysis of needs assessment techniques for educational planning at state, intermediate, and district levels.* Office of the Alameda County Superintendent of Schools, Hayward, California, 1975.

This work describes the state of the art of needs assessment strategies and techniques, reviews a number of existing documents, and describes how to do a needs assessment.